I claim:

1. A process for removing a volatile gas from wet sludge, comprising:
a) adding zeolite to a concentration of at least 0.05 gm per gallon of the sludge;
b) treating with ultrasonic energy to release the volatile gas from the sludge for binding to the zeolite; and
c) removing the zeolite by flocculation.

2. The process of claim 1, wherein the zeolite is clinoptilolite.

3. The process of claim 1, wherein the clinoptilolite comprises at least 0.5% calcium oxide.

4. The process of claim 1, wherein less than 2 watts hours of ultrasonic energy is delivered per gram of dry sludge matter.

5. The process of claim 1, wherein the volatile gas is selected from the group consisting of ammonia, a nitrogen compound, a sulfur compound, and hydrogen sulfide.

6. The process of claim 1, wherein the animal waste is selected from the group consisting of human septic waste, human sewage waste, swine waste effluent, chicken waste effluent, bovine waste effluent, duck waste effluent, and turkey waste effluent.

7. A process for inactivating anaerobic bacteria in a sludge waste stream, comprising:
a) adding zeolite to the waste stream;
b) adding an oxidizer to the stream;
c) treating the oxidized waste stream with ultrasonic energy;
d) removing solids from the waste stream .

8. The process of claim 7, wherein less than 2 watts hours of ultrasonic energy is delivered per gram of dry sludge matter.

9. The process of claim 7, wherein solids are removed by flocculation

10. The process of claim 7, wherein the animal waste is selected from the group consisting of human septic waste, swine waste effluent, chicken waste effluent, bovine waste effluent, duck waste effluent, and turkey waste effluent.

11. A low energy process for economical concentration of watery sludge into a more useful form, comprising:
a) adding zeolite to the sludge;
b) treating the sludge having added zeolite with ultrasonic energy at between 0.001 and 8.0 watt hours of ultrasonic energy per gram of solid in the sludge;
c) adding a flocculant to the ultrasonically treated sludge; and
d) dewatering by at least one of: a) placing the flocculant treated sludge into a geotextile; b) placing the sludge into a cyclonic dryer; and c) treating the sludge by dissolved air floatation.

12. The process of claim 11, wherein the zeolite is added at a ratio of between 0.1 and 2.5 percent wgt/wgt of solid matter in the sludge.

13. The process of claim 11, wherein at least steps b) and c) are carried out in a sludge flow stream.

14. The process of claim 11, wherein the flocculant is added to a final concentration of between 10 and 1000 parts per million.

15. The process of claim 11,wherein the geotextile has a nominal sieve opening size of between 10 and 1000 microns.

16. The process of claim 11, wherein the sludge remains at less than 30 degrees centigrade at all times.

17. The process of claim 11, wherein the sludge contains less than 5% solids prior to addition of zeolite and becomes concentrated to at least 8% solids by gravity action in the geotextile.

18. The process of claim 11, wherein the sludge contains less than 5% solids prior to addition of zeolite and becomes concentrated to at least 16% solids by gravity action in the geotextile.

19. The process of claim 11, further comprising the step of adding an oxidant prior to ultrasonication.

20. The process of claim 19, wherein the oxidant is ozone.

21. A low energy process as described in claim 11, wherein the treated sludge in the geotextile is exposed to a vacuum to further remove water.

22. The process of claim 11, wherein the treated sludge in the geotextile is transported by truck or rail car to a site for air drying and pulverization into fertilizer.

23. The process of claim 11, wherein the animal waste is selected from the group consisting of human septic waste, swine waste effluent, chicken waste effluent, bovine waste effluent, duck waste effluent, and turkey waste effluent.
d) removing solids from the waste stream by flocculation.

24. A sludge flow stream treatment system for selectively inactivating anaerobic bacteria and creating small solid particles, comprising:
a) a flow stream with an input for watery sludge and an input for an oxidizer;
b) a pump;
b) an oxidizer;
c) an ultrasonic generator of greater than 1 kilowatt output; and
d) an output;

wherein the sludge contains between 0.1 and 10% solid material and enters as a flow stream through the treatment device at a flow rate of at least one gallon per minute.

25. The system of claim 24, wherein the oxidizer is an ozone generator.

26. The system of claim 24, wherein the ultrasonic generator generates more than 2.5 kilowatts of energy.

27. The process of claim 24, further comprising an input for the addition of zeolite to the flow stream prior to sonication.

28. The process of claim 24, wherein less than 2 watts hours of ultrasonic energy is delivered per gram of dry sludge matter.

29. A system for dewatering fecal waste, comprising a sonicator, a flocculant and a dewatering apparatus, wherein the sonicator is in contact with the fecal waste and creates smaller and more uniform particles in the fecal waste upon activation, the flocculant is added to the sonic treated fecal waste and the flocculant and waste combination then is further treated by the dewatering apparatus to remove water.

30. The system of claim 29, wherein the dewatering apparatus is selected from the group consisting of a geotextile that allows an elutriate to pass through a bag; and a cyclone dryer.

31. A system for destroying fecal bacteria in a sludge stream or batch sample, comprising a source of active oxygen, and a high power sonicator of at least 3 kilowatts, wherein the active oxygen is added to the sludge stream or batch sample and then the sonicator activates the sample to at least destroy or weaken fecal bacteria in the sample.

32. The method of claim 31, wherein the active oxygen is ozone.

33. The method of claim 31, further comprising the step of drying the sludge at a low temperature.

34. The method of claim 33, wherein the temperature is no higher than 40 degrees centigrade.